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EXAMINER

WASYLCHAK, STEVEN R

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/202,783

Applicant(s)

FISCHER ET AL.

Examiner

Steven R. Wasylchak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The 112 first objection for indefiniteness with respect to "storage" for all pending claims 8-17 is rescinded by the introduction of the modifier "intelligent", which examiner respectfully assumes does not imply the use of artificial intelligence. The word "computer" after debit information in claim 8 is a copying error and has been dropped to conform to amended claim and that rejection has been withdrawn.

### **Response to Arguments**

2. On page 8 of the amendment received on Feb. 25, 2004, Applicant asserts that Chaum does not use a first data word as an identifier. Such an identifier, which has to be used to set up an initial "handshake" connection in the first physical layer of network protocol, is found in Chaum (col 3, L 10-45, 54-64). The smart card is bi-directional, having an uplink and downlink in fig 5A,B as seen by arrows going the opposite direction under smart card (challenge and payment/opener). Likewise, see fig 1(22) and its bi-directional arrow and col 4, L 1-6). Vehicles can be charged a varying amount, depending upon point of entry on road (see col 4, L 24-36). See first and second data words as the commit data package and challenge data package that has the identifier (col 3, L 10-45).

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaum et al. (US 5,485,520) and in view of Cryptography and Network Security by William Stallings.

As per claim 8,

A method for posting debit information to a mobile intelligent storage device using a terminal, the terminal being in a wireless, secure communication with a computer, the method comprising the steps of:

Chaum discloses performing a mutual dynamic authenticity test between the computer, the terminal and the intelligent storage device using at least one data word, / col 3, L 10-45, L 54 to col 4, L 18; *fig 1 (wireless)*; **fig 5A-B (see payment/center under complex frame protocol, smart card)**; **fig 5D-C (see command time line with data frame which includes debit data and frame markers)**; col 23, line 41 to col 24, line 24; col 25, line 52 to col 26, line 31, col 27, line 63 to col 28, line 52. Chaum does not explicit disclose at least one data word constantly changing. However, Stallings discloses the at least one data word constantly changing in the form of a random number generator (page 153, second and third paragraph). It would have been obvious to one of ordinary skill in the art to use this limitation the at least one data word constantly changing for the advantage of establishing a very secure encryption system

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using random numbers generated by an internal clock in the microprocessor.

-generating, by one of the computer and the terminal, the debit information; / col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L 18; **col 4, L 9-17, 47-51;**

**fig 5A-B(see payment/center under complex frame protocol); fig 5D-C(see command time line with data frame which includes debit data and frame markers)**

-processing, by the intelligent storage device, the debit information; / claims 2 and 15 (contain is to store); col 2, L 1-28, 38-52; col 3, L 10-45, L 54 to col 4, L 18; **fig 5A-B(see payment/center under complex frame protocol); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 23, line 3-17(memory for database), line 41 to col 24, line 24; col 25, line 52 to col 26, line 31, col 27, line 63 to col 28, line 52; col 22, L 18-19(bi-directionality)**

-before an interrupt-sensitive time period, transmitting a first data word of the at least one data word from the intelligent storage device to the terminal, the first data word being generated for the mutual dynamic authenticity test; / col 3, L 10-45; **fig 4A (700, 702); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 23, line 41 to col 24, line 24; col 27, line 63 to col 28, line 52; col 15, L 22-64; col 16, L 13-31; col 22, L 18-19)**

-during the interrupt-sensitive time period, transmitting a particular signal from the terminal to the intelligent storage device, the particular signal including a posting triggering signal, a posting data record, an identifier generated using the first data word and a second data word of the at least one data word generated by one of the computer

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and the terminal; / col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18; **fig 4A (700, 702); fig 5A-B(see payment/center under complex frame protocol); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 23, line 41 to col 24, line 24; col 25, line 52 to col 26, line 31, col 27, line 63 to col 28, line 52; col 22, L 18-19; col 14, L 1-13 and col 24 (37-38: time out creates interrupt)**

-checking, by the intelligent storage device, the identifier; / col 3, L 10-45, L 54 to col 4, L18; **fig 5A-B(see payment/center under complex frame protocol); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 23, line 41 to col 24, line 24; col 25, line 52 to col 26, line 31, col 27, line 63 to col 28, line 52; ; col 22, L 18-19**

-posting, by the intelligent storage device, the debit information as a function of the posting data record; / col 2, L 1-22; col 4, L 1-18, col 15, L 22-64(identifier, handshake, interrupt, buffer); col 5, L 55-63; col 6, L 47-51; **fig 5A-B(see payment/center under complex frame protocol); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 22, L 18-19**

-generating, by the intelligent storage device, a further identifier as a function of the second data word; / col 3, L 10-45, L 54 to col 4, L18; **col 21, L 38-44(identifier);col 25, L 3 to 35 (identifier); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 23, line 41 to col 24, line 24; col 25, line 52 to col 26, line 36("redundant frames"); col 3, L 10-45**

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-transmitting, by the intelligent storage device, a confirmation signal and the further identifier to the computer via the terminal, the confirmation signal being provided to indicate that the debit information has been posted, the confirmation signal being transmitted from the terminal to the computer one of during and outside of the interrupt-sensitive time period. / col 3, L 10-45, L 54 to col 4, L 18; **fig 5A-B(see payment/center under complex frame protocol); fig 5D-C(see command time line with data frame which includes debit data and frame markers); col 23, line 41 to col 24, line 24; col 25, line 52 to col 26, line 36, col 27, line 63 to col 28, line 52; col 21, L 38-44(identifier); col 16, L 53-65; col 22, L 18-19; col 26, L 13-35 (discontinuous intervals are during and outside of the interrupt-sensitive time period)**

As per claim 9,

The method according to claim 8, further comprising the step of: after the confirmation signal is transmitted, receiving an acknowledgment signal for the posted debit information from the computer by the terminal. / col 3, L 10-45, L 54 to col 4, L 18

As per claim 10,

The method according to claim 8, wherein the mobile intelligent storage device includes an IC card. / abstract

As per claim 11,

The method according to claim 8, wherein the wireless secure communication is performed via a computer station. / fig 1

As per claim 12,

The method according to claim 8, wherein the posting data record

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includes a transaction data record for creating a log book entry in the intelligent storage device. / col 1, L 6-15; col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18

As per claim 13,

The method according to claim 12, wherein the transaction data record is supplemented by an acknowledgment signal which is transmitted outside of the interrupt-sensitive time period. / fig 5D,C; col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18

As per claim 14,

The method according to claim 12, wherein the intelligent storage device is formed using a plurality of page records for storing the debit information, and the method further comprising the steps of:

-temporarily storing the transaction data record during the interrupt sensitive time period on a particular page record of the plurality of page records; and / col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18

-outside of the interrupt-sensitive time period, transmitting the transaction data record to a log book data file. / col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18

As per claim 15,

The method according to claim 14, further comprising the step of:  
until the transmitting of the transaction data record to the log book data



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file is performed, blocking the intelligent storage device for posting the debit information.

/ col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18

As per claim 16,

The method according to claim 8, wherein the method is utilized to post use fee debit information. / claim 15; col 1, L 6-15; col 2, L 38-52; col 2, L 65 to col 3, L 9; col 3, L 10-45, L 54 to col 4, L18

As per claim 17,

The method according to claim 16, wherein the method is utilized to collect a toll for a motor vehicle. / abstract

This action is **FINAL**. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven R. Wasylchak whose telephone number is (703) 308-2848. The examiner can normally be reached on Monday-Thursday from 9:00 a.m. to 7:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin, can be reached at (703) 308-1065. The fax number for Art Unit 3624 is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Steven Wasylchak

5/5/04 

~~RICHARD WEISBERGER~~  
~~PRIMARY EXAMINER~~